8400.10 8/23/88

# SECTION 7. MAXIMUM PASSENGER SEATING CAPACITY FOR AIRPLANES USED IN PART 121 OPERATIONS

1765. TABLE OF MAXIMUM DEMONSTRATED SEAT-ING CAPACITIES. The maximum number of passenger seats for specific air transport category airplanes used in Part 121 operations are listed in table 3.10.7.1. This table must be used by flight standards field inspectors to determine whether a full-scale or a partial aborted takeoff demonstration is required. This list is to be considered the primary source document for flight standards inspectors when determining maximum seating capacities. Any question or information that differs from the data provided in this list shall be

brought to the attention of AFS-200. These numbers have been derived from the following:

- Full-scale aborted takeoff emergency evacuation demonstrations
- An approved analysis for a seating capacity up to five percent more than that which was previously demonstrated from full-scale demonstrations
- As a result of previous (now superseded) regulations and exemptions

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## TABLE 3.10.7.1. MAXIMUM APPROVED PASSENGER SEATING CAPACITY FOR TRANSPORT CATEGORY AIRPLANES TYPICALLY USED IN AIR CARRIER SERVICE

AIRPLANE MANUFACTURER AND MODEL	PAX <sup>1</sup> CAP.	EXIT CONFIGURATION	METHOD <sup>2</sup> OF COMPLIANCE	NOTES ON <sup>3</sup> SPECIAL FEATURES
AEROSPATIALE ATR 42	60*	Data to be added at next revision	Demo	
ATR 42	34*	Data to be added at next revision	Demo	In combi configuration
ATR 72	66		Full Scale Demo and (As indicated on U.S. Type Data Sheet)	
AIRBUS A300	345*	Three pair Type A and one pair Type I exits	Analysis	Dual aisle interior configuration
A310	265	Three pair Type A and one pair Type I exits	Demo	Dual aisle interior configuration
A320	179	Two pair Type I and two pair Type III doors	Demo	
A340-200	375	Three pair Type A and one pair of Type I exit OR four pair Type A exits	Analysis	
BOEING 707-100	189*	Two pair Type I and two pair Type III exits	Refer to Footnote <sup>2</sup>	
707-300	189*	Two pair Type I and two pair Type III exits	Refer to Footnote <sup>2</sup>	
720-048	149*	Two pair Type I and one pair Type III exits	Refer to Footnote <sup>2</sup>	
727-100	119	One pair Type I, one pair Type III,and one pair Type IV exits	Refer to Footnote <sup>2</sup>	
727-100	129*	One pair Type I, one pair Type III, one pair Type IV exits and ventral stair with emergency extension sys- tem	Refer to Footnote <sup>2</sup>	

<sup>\*</sup> 1,2,3 Refer to footnotes at end of table

TABLE 3.10.7.1. MAXIMUM APPROVED PASSENGER SEATING CAPACITY FOR TRANSPORT CATEGORY AIRPLANES TYPICALLY USED IN AIR CARRIER SERVICE—Continued

AIRPLANE MANUFACTURER AND MODEL	PAX <sup>1</sup> CAP.	EXIT CONFIGURATION	METHOD <sup>2</sup> OF COMPLIANCE	NOTES ON <sup>3</sup> SPECIAL FEATURES
BOEING (Continued) 727-200	189*	Two pair Type I and two pair Type III exits	Analysis	Analysis is based on previous demonstra- tions and analyzed to 189
737-100	124	Two pair Type I and one pair Type III exits	Analysis	Analysis based on 737-200 demo, and reconfirmed by 737-300 demo
737-200	136	Two pair Type I and one pair Type III exits	Analysis	Analysis based on evacuation of 130 passengers plus 5% and reconfirmed by 737-300 demo
737-300	149*	Two pair Type I and one pair Type III exits	Demo	
737-400	188	Two pair Type I and one pair Type III exits	Demo	
737-500	140	Two pair Type I and one pair Type III exits	Analysis	
747-100, -200,SR	550*	Five pair Type A exits	Analysis	Dual aisle interior configuration, analysis based on dem- onstration
747SP	400	Four pair Type A exits	Analysis	Dual aisle interior configuration

The upper deck capacities for the 747-100, -200, SR, and SP airplanes are listed below. These capacities are not in addition to that of the main deck; they represent that portion of the main deck capacity that can occupy the upper deck during takeoff and landing.

8*	One exit and slide	Demo	Circular or straight stair
116*	One exit and improved slide	Demo	Circular or straight stair

<sup>\*</sup> 1,2,3 Refer to footnotes at end of table

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TABLE 3.10.7.1. MAXIMUM APPROVED PASSENGER SEATING CAPACITY FOR TRANSPORT CATEGORY AIRPLANES TYPICALLY USED IN AIR CARRIER SERVICE—Continued

AIRPLANE MANUFACTURER AND MODEL	PAX <sup>1</sup> CAP.	EXIT CONFIGURATION	METHOD <sup>2</sup> OF COMPLIANCE	NOTES ON <sup>3</sup> SPECIAL FEATURES
BOEING (Continued)	24*	One exit and slide 25 knot	Analysis	Straight stair
	32*	Two Type I exits and 25 knots slides	Analysis	Special Condition 25- 61-NW-1 contains additional require- ment. Contact the Seattle Aircraft Certi- fication Office (SACO) for informa- tion on these require- ments
	45*	Two Type I exits and 25 knots slides	Analysis	Special Condition 25- 71-NW-3 contains additional require- ments that must be complied with. Con- tact the SACO for information on these requirements
747-300, -400	Main Deck 550*	Five pair Type A exits	Analysis	
	Upper Deck 110*	One pair Type I exit	Analysis	Upper deck capacity is in addition to the main deck capacity
747-400 Combi				As per approved delivery configuration

#### 747 CARGO AIRPLANES

The upper deck capacities for the 747 cargo airplanes are as follows:

	3*	Cockpit hatch and sufficient descent reels for crew	Analysis	Crew members only
	8*	Cockpit hatch with descent reels and one exit with slide	Analysis	3 crew plus 5 persons per Exemption 1870 B (Issued by the Office of Flight Standards)
	19*	Two exits with 25 knot slides	Analysis	3 crew plus 19 passen- gers, and 1 flight atten- dant
	19*	Cockpit hatch with descent reels and two exits with 25 knot slides	Analysis	3 crew plus 19 persons (ref. FAR 121.583 except para. (8)), and 1 flight attendant
757-200	219*	Four pair Type I exits	Demo	

<sup>\*1,2,3</sup> Refer to footnotes at end of table

TABLE 3.10.7.1. MAXIMUM APPROVED PASSENGER SEATING CAPACITY FOR TRANSPORT CATEGORY AIRPLANES TYPICALLY USED IN AIR CARRIER SERVICE—Continued

AIRPLANE MANUFACTURER AND MODEL	PAX <sup>1</sup> CAP.	EXIT CONFIGURATION	METHOD <sup>2</sup> OF COMPLIANCE	NOTES ON <sup>3</sup> SPECIAL FEATURES
BOEING (Continued)	224*	Three pair Type I and two pair Type III exits	Demo	
	239*	Three pair Type I and one pair improved Type I exits	Analysis	An improved Type I exit is known as a Type "B"
767-200	255*	Two pair Type A and one pair Type III exits	Demo	Dual aisle interior configuration
767-200, -300	290*	Two pair Type A and two pair Type III exits	Analysis	Dual aisle interior configuration
BRITISH AEROSPACE CORPORATION HS-748	52	Data to be added at next revision		
BAC-111	79	Data to be added at next revision		
BAC-111	89	One pair Type I and one pair Type III exits and verbal stair exit shown in BAC Mod. No. 52-PM2508		Data to be added at next revision
BAE-146-100	90	Two pair Type I exits	Demo	Maximum seating capacity of 109 approved for -100 and - 200 with two pairs of type I exits by Exemption 3639
BAE-146-200, -300	108	Two pair Type I exits	Demo	
CANADAIR CL-600-2B19 (Regional Jet)	50	One pair Type I and One pair Type III exits	Demo	Demo performed with one flight attendant
CARAVELLE				
S210	90	Other data not appropriate due to age of airplane		
CONVAIR				
CV440	54	Other data not appropriate due to age of airplane		
CV580	59	Other data not appropriate due to age of airplane		
CV880	119	Other data not appropriate due to age of airplane		
CV990	149	Other data not appropriate due to age of airplane		

<sup>\*1,2,3</sup> Refer to footnotes at end of table

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## TABLE 3.10.7.1. MAXIMUM APPROVED PASSENGER SEATING CAPACITY FOR TRANSPORT CATEGORY AIRPLANES TYPICALLY USED IN AIR CARRIER SERVICE—Continued

AIRPLANE MANUFACTURER AND MODEL	PAX <sup>1</sup> CAP.	EXIT CONFIGURATION	METHOD <sup>2</sup> OF COMPLIANCE	NOTES ON <sup>3</sup> SPECIAL FEATURES
DEHAVILLAND				
DHC-7-100,-102	54	Data to be added at next revision		
DHC-7-101,-103	50	Data to be added at next revision		In combi configuration
FAIRCHILD F227	48	Data to be added at next revision		
FOKKER F.27 mk. 100, 200, 300, 400, 600, 700	48	One pair Type I and one pair Type IV	Demo and Analysis	1) RH rear exit is demonstrated equivalent to a Type I exit 2) Underwing exits are demonstrated equivalent to Type IV exits
F.27 mk. 500	60	Same as other mk's	Demo and Analysis	Same as other mk's
F.28 mk. 1000, 3000	65	One pair Type I and one pair Type III	Demo	70 pax after incorporation of Service Bulletin
F.28 mk. 2000	79*	One pair Type I and one pair Type III	Supp. demo based on demo for 65 pax.	
F.28 mk. 4000	85	One pair Type I and two pair Type III	Demo	
LOCKHEED L188	99	Other data not appropriate due to age of aircraft		
L1011-385-1	362	Three pair Type A and one pair Type I exits	Analysis	Dual aisle interior configuration, 345 passengers were demonstrated
L1011-385-1	400	Four pair Type A exits	Demo	Demonstrated with 10 flight attendants in lieu of the minimum 8 required, dual aisle interior configurations
L1011-385-3 (L1011-500)	315	Three pair Type A exits	Analysis	Dual aisle interior configuration

<sup>\*1,2,3</sup> Refer to footnotes at end of table

## TABLE 3.10.7.1. MAXIMUM APPROVED PASSENGER SEATING CAPACITY FOR TRANSPORT CATEGORY AIRPLANES TYPICALLY USED IN AIR CARRIER SERVICE—Continued

AIRPLANE MANUFACTURER AND MODEL	PAX <sup>1</sup> CAP.	EXIT CONFIGURATION	METHOD <sup>2</sup> OF COMPLIANCE	NOTES ON <sup>3</sup> SPECIAL FEATURES
MCDONNELL- DOUGLAS		Other data and committee		
DC-6	82	Other data not appropriate due to age of airplane		
DC-7	91	Other data not appropriate due to age of airplane		
DC-8 Basic	189	Two pair Type I and two pair Type III exits		
		The DC-9-80 Series includes: DC-8-11/DC-8-33/DC-8-52 DC-8-12/DC-8-41/DC-8-53 DC-8-21/DC-8-42/DC-8-55 DC-8-31/DC-8-43/DC-8-62** DC-8-32/DC-8-51/DC-8-72**		Demo not required by CAR 4b
DC-8F		Three pair Type I and two pair Type III exits	Analysis	
	214	The DC-8F Series includes:  DC-8F-54 DC-8-62F DC-8F-55 DC 8-72F		
DC-8-60	269	Four Type I and two Type III exit pairs	Demo	Five percent increase is not possible due to the method used to conduct the demonstration. Contact Los Angeles Aircraft Certification Office for details

<sup>\*1,2,3</sup> Refer to footnotes at end of table

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<sup>\*\*</sup>McDonnell Douglas delivered to United Airlines, a configuration of the DC-8-62 (or DC-8-72) with an extra pair of Type I exits. This configuration is equivalent to the DC-8-62F (or DC-8-72F) and therefore, has a capacity of 214.

## TABLE 3.10.7.1. MAXIMUM APPROVED PASSENGER SEATING CAPACITY FOR TRANSPORT CATEGORY AIRPLANES TYPICALLY USED IN AIR CARRIER SERVICE—Continued

AIRPLANE MANUFACTURER AND MODEL	PAX <sup>1</sup> CAP.	EXIT CONFIGURATION	METHOD <sup>2</sup> OF COMPLIANCE	NOTES ON <sup>3</sup> SPECIAL FEATURES
MCDONNELL- DOUGLAS (Continued)		The DC-8-60 Series includes:  DC-8-61/DC-8-71 DC-8-61F/DC-8-71F DC-8-63/DC-8-73 DC-8-63F/DC-8-73F		
DC-9-10/20	79	One pair Type I and one pair Type III exits		Demo not required by CAR 4b. Assist rope installed at tailcone, add 5 if inflatable slides are installed at the Type I exit pair
	94	One pair Type I and one pair Type III exits		Tailcone exit must comply with exemption 424: Contact Los Angeles Aircraft Certification Office (LAACO) for details. Add 5 if inflat-
		The DC-9-10/20 series includes:  DC-9-11 DC-9-12/DC-9-15 DC-9-15F DC-9-13/DC-9-21 DC-9-14		able slides are installed at Type I exit pair
DC-9-10/20/30 Series	109	One pair Type I and two pair Type III exits  The DC-9-10/20/30 Series includes:  DC-9-11/DC-9-15/DC-9-32F DC-9-12/DC-9-15F/DC-9-33F DC-9-13/DC-9-21/DC-9-34 DC-9-14/DC-9-32/DC-9-34F		Demo not required by CAR 4b. Assist rope installed at tailcone, add 5 if inflatable slides are installed t the Type I exit pair; aft Type IV qualification; Contact LAACO for details

<sup>\*1,2,3</sup> Refer to footnotes at end of table

TABLE 3.10.7.1. MAXIMUM APPROVED PASSENGER SEATING CAPACITY FOR TRANSPORT CATEGORY AIRPLANES TYPICALLY USED IN AIR CARRIER SERVICE—Continued

AIRPLANE MANUFACTURER AND MODEL	PAX <sup>1</sup> CAP.	EXIT CONFIGURATION	METHOD <sup>2</sup> OF COMPLIANCE	NOTES ON <sup>3</sup> SPECIAL FEATURES
DC-9-30	127	One pair Type I and two pair Type III exits	Demo	Tailcone exit must comply with FAR
		The DC-9-30 Series includes:		25.807(c)(4)(ii); aft Type III exit pair may
		DC-9-31/DC-9-33F DC-9-32/DC-9-34 DC-9-32F/DC-9-34F		be limited to Type IV qualification; contact LAACO for details
DC-9-41	128	One pair Type I and two pair Type III exits	Demo	Tailcone must comply with FAR 25.807(c)(4)(ii); aft Type III exit pair may be limited to Type IV qualification; contact LAACO for details
DC-9-51	139*	One pair Type I and two pair Type III exits	Demo	Tailcone exit must comply with FAR 25.807(c)(4)(ii); aft Type III exit pair may be limited to Type IV qualification; contact LAACO for details
DC-9-80	172*	Two pair Type I and two pair Type III exits  The DC-9-80 Series includes:  DC-9-81 (MD-81) DC-9-82 (MD-82) DC-9-83 (MD-83)	Demo	Tailcone exit must comply with FAR letter to Douglas dated 11/16/77; contact LAACO for details

<sup>\*1,2,3</sup> Refer to footnotes at end of table

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## TABLE 3.10.7.1. MAXIMUM APPROVED PASSENGER SEATING CAPACITY FOR TRANSPORT CATEGORY AIRPLANES TYPICALLY USED IN AIR CARRIER SERVICE—Continued

AIRPLANE MANUFACTURER AND MODEL	PAX <sup>1</sup> CAP.	EXIT CONFIGURATION	METHOD <sup>2</sup> OF COMPLIANCE	NOTES ON <sup>3</sup> SPECIAL FEATURES
DC-10	345	Three pair Type A and one pair Type I exits	Demo	Dual aisle interior configuration
		The DC-10 Series includes: DC-10-10/DC-10-30 DC-10-10F/DC-10-30F DC-10-15/DC-10-40		
DC-10	380	Three pair Type A exits, and one pair improved Type I exit with a 36-inch passageway leading to exits, double-lane slides, and two flight attendant assist spaces each at doors 1L and 1R	Demo	Dual aisle interior configuration, an improved Type I exit is known as a Type "B," contact LAACO for additional details concerning this configuration; reference Exemption 1573
MD-11	410	Three pair Type A exits, and one pair improved Type I exit with a 36-inch passageway leading to exits, double-lane slide/rafts, and flight attendant assist spaces at all doors.	Analysis/Platform Demo	Dual aisle interior configuration, an improved Type I exit is known as a Type "B," Special flight attendant training requirements for seating capacity above 381.  Contact LAACO and LGB-AEG for details concerning this configuration.
NIPPON	59	Data to be added at next revision		Add 5 if two inflatable
YS-11				slides are installed
VICKERS VC 745 D	51	Other data not appropriate due to age of airplane		
VC 800	72	Other data not appropriate due to age of airplane		

<sup>\*1,2,3</sup> Refer to footnotes at end of table

### TABLE 3.10.7.1. MAXIMUM APPROVED PASSENGER SEATING CAPACITY FOR TRANSPORT CATEGORY AIRPLANES TYPICALLY USED IN AIR CARRIER SERVICE—Continued

#### **FOOTNOTES**

<sup>1</sup>An asterisk (\*) beside a passenger capacity value indicates that the capacity is restricted by the exit rating limit and no increase is allowed without a change to the number and/or type of exits used.

<sup>2</sup>The method of compliance indicates whether the capacity was approved based on the conduct of a full-scale evacuation demonstration (demo) or an analysis. An analysis is based on a previous full-scale demo and/or other tests that validate the analysis. In the case of airplanes with a certification basis of Civil Air Regulations (CAR) 4b, such as Boeing 727, neither demonstration nor analysis is required. In these cases, certain criteria of FAR § 25.2 may be applicable for increases in passenger capacities; either the Seattle or Los Angeles Aircraft Certification Office should be contacted for details.

<sup>3</sup>This table and these notes describe special features pertinent to the listed passenger capacities. They may not represent all of the unique factors affecting the passenger capacities and interior configurations of the listed airplane models. For this reason, aircraft certification engineering personnel should be consulted, through either the Seattle Aircraft Evaluation Group, SEA AEG (206) 227-2280 and FAX: (206) 227-1270, or the Long Beach Aircraft Evaluation Group, LGB AEG (310) 988-5272 and FAX: (310) 988-5281, prior to approving a change to either the passenger capacity or interior configuration.

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